

Heavy Ion SEE

Test Org.*	Device	Function	Technology	Mfr.	Effective SEU LET* Threshold	Device Xsection (cm ²)	Bits Tested	Bit Xsection (cm ²)	Test Date	LUth	LU Xsection (cm ²)	Fac.	Remarks	23-Aug-99
Microprocessor (8-bit)														
	Note: Entries in RED indicate data added since the 1997 Compendium.													
JPL/ARSP	1802		CMOS	SNL	>120		256		Jun-93			UCB		
ARSP	6800		NMOS	MOT	7	3.0E-04	70	3.5E-06				UCB		
S ³	8085		NMOS	AMD	<6	3.0E-03	126	>1.2E-05				UCB	Oxygen data to compare with INT 8085 data.	
S ³	8085		NMOS	INT	<6	6.0E-05	126					UCB	24 MeV O. Kr cross section predicted 1500 μm ² by analogy to AMD8085	
JPL/ARSP	8085		NMOS	INT	<2.8	4.0E-03	126		1987			UCB	Cross Section is for op register only.	
JPL/ARSP	1802RH		CMOS	RCA	>120		256		Jun-83			UCB		
MHS?	80C31		CMOS/epi?	MHS							2.0E-05	GANIL	LU with ~3 GeV Kr. Menke's MHS letter is flawed DC9149	
MHS?	80C31E (Temic type)		CMOS	MHS	5		50			>75			TEMIC/Matra MHS Radiation Evaluation Results Table July,1996	
CNES	80C31L		CMOS/epi	MHS	~3	2.0E-03	1000	1.1E-06	Feb-89	>40		UCB	No LU >40. Aerospace at beam control. Compare previous entry	
MHS?	80C32E (Temic type)		CMOS	MHS	5		40			>100			TEMIC/Matra MHS Radiation Evaluation Results Table July,1996	
MHS	80C52μE		SCMOS1RT (epi, rad hard)	MHS								GANIL	T. Corbiere 4/94. No LU. Trans. power consumption probably induced by upset.	
MHS?	80C52E (Temic type)		CMOS	MHS	5		40			>100			TEMIC/Matra MHS Radiation Evaluation Results Table July,1996	
ARSP	80C85RH		CMOS/epi	HAR	35	1.0E-04	93		Mar-87			UCB	5 V bias. No difference between this device and SNL SA3000.	
ARSP	80C85RH		CMOS/epi	HAR	60		93					UCB	10 V bias. No difference between this device and SNL SA3000.	
JPL	80C85RH		CMOS/epi	HAR	30	1.0E-04	93		Jun-87	>120		UCB	5.5 V bias. No difference between this device and SNL SA3000. Also at BNL	
JPL	80C85RH		CMOS/epi	HAR	>75		93		Jul-91			BNL	10 V bias. Little difference between older and newer HAR versions tested.	
ARSP	8X300		Bipolar-TTL	SGN	18	2.0E-03	128	2.0E-05	Jun-93			UCB	Registers only.	
ARSP	8X305		Bipolar-TTL	SGN	3	2.5E-03	128		Jun-93			UCB	Registers only.	
JPL	F9450		Bipolar-IIL	FAS	11				Oct-87			UCB	Nichols, et al, 88IEEE TNS, No. 6, pg 1619. High temp. data.	
JPL	GP001	Slice	CMOS/SOS	RCA	>75		113						Old & new versions tested	
CNES	MC80C52EH135-E		SCMOS1RT 1 μm (epi, rad hard)	MHS	~4	2.0E-03				>72		IPN	Estreme-Bezerra, CNES Rept. 6/94. D/C 9322.	
ARSP	NSC800		CMOS	NSC	4		208	3.0E-05		<20		UCB	Latchup <20	
ARSP	SA3000		CMOS/epi	SNL	35	1.0E-04	93		Mar-87			UCB	5 V bias. No difference between this device and HAR 80C85.	
ARSP	SA3000		CMOS/epi	SNL	60		93					UCB	10 V bias. No difference between this device and HAR 80C85.	
JPL	SA3000		CMOS/epi	SNL	30	1.0E-04	93		Jun-87	>120		UCB	5.5 V bias. No difference between this device and HAR 80C85. Also at BNL	
JPL	SA3000		CMOS/epi	SNL	>75		93		Jul-91			BNL		
JPL	SBP9900		Bipolar-IIL	TIX	20	1.5E-04	346	4.5E-07				UCB		

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